ABSTRACT OF THE DISCLOSURE

[00113] A storage system permits virtual storage of user data by implementing a logical disk mapping structure that provides access to user data stored on physical storage media and methods for generating point-in-time copies, or snapshots, of logical disks. A snapshot logical disk is referred to as a predecessor logical disk and the original logical disk is referred to as a successor logical disk. Creating a snapshot involves creating predecessor logical disk mapping data structures and populating the data structures with metadata that maps the predecessor logical disk to the user data stored on physical media. Logical disks include metadata that indicates whether user information is shared between logical disks. Multiple generations of snapshots may be created, and user data may be shared between these generations. Methods are disclosed for maintaining data accuracy when write I/O operations are directed to a logical disk.